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EXAMINER	
MASKULINSKI, MICHAEL C	
ART UNIT	**PAPER NUMBER**
2113	8

DATE MAILED: 04/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PRG

Office Action Summary	Application No. 09/664,941	Applicant(s) LEE ET AL.	
	Examiner Michael C Maskulinski	Art Unit 2113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) *4,14-19,21 and 32-37* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-13,20 and 22-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Non-Final Office Action

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 5, 6, 9-11, 22-24, and 28-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Fuh et al., U.S. Patent 6,324,683 B1.

Referring to claims 1 and 9:

a. In column 12, lines 8-30, Fuh et al. disclose that the debugger is initiated by the client (detecting a debug request initiated by a user of a client computer to debug an application program on said client computer).

b. In column 33, lines 40-47, Fuh et al. disclose that the debugger client and debugger server can communicate with the tool locator through a socket connection such as a connectionless internet family socket that is bound to an internet address specified in an environment variable named TOOLLOCATORHOST, and a reserved well-known port (transmitting said debug request to a server computer over the Internet).

c. In column 11, lines 60-62, Fuh et al. disclose that each connected client is serviced by a database engine that is running in a set of threads on the database

server machine within a process that is shared by other clients (establishing a connection between said client computer and said server computer over the Internet).

d-g. In column 12, lines 8-30, Fuh et al. teach receiving a request from a debug program of the server computer; causing an application program of the client computer to generate a response to the request; and transmitting an indication of the response back to the debug program; and repeating these steps multiple times so as to run the application program through a diagnostic sequence.

Referring to claims 2, 10, 23, and 29, in column 10, lines 13-15, Fuh et al. disclose that the debugger issues a series of RPC calls to obtain a current context of the underlying external program and displays the current context state along with a frozen external program state to a user. The user can then use all of the debugging functions of the debugger on the external program (wherein said diagnostic sequence is provided to said debug program by a user of said server computer).

Referring to claims 3, 11, 24, and 30, in column 10, lines 4-13, Fuh et al. disclose that execution of the external program is suspended while the debugger executes a remote procedure call (RPC) to get the most recent invocation stack frame record from the DBMS. The debugger then sets a breakpoint at the entry point of the external program. When the external program is executed, the breakpoint set by the debugger is encountered (wherein said diagnostic sequence is preprogrammed into said debug program).

Referring to claim 5, in column 56, lines 53-67, Fuh et al. disclose that the user needs to specify the various programs that make up the application. For each program the user needs to specify the program arguments, the host machine the program should run on, and the user ID the program should run under (transmitting identifications of said application program and said client computer to said server computer).

Referring to claim 6, in column 56, lines 53-67, Fuh et al. disclose that the user needs to specify the various programs that make up the application. For each program the user needs to specify the program arguments, the host machine the program should run on, and the user ID the program should run under. Further, optionally, additional information may be specified for passwords, debugging options, etc. (transmitting a user identification and a password provided by a user of said client computer to said server computer).

Referring to claims 22 and 28:

a. In column 12, lines 8-30, Fuh et al. disclose that the debugger is initiated by the client. Further, in column 33, lines 40-47, Fuh et al. disclose that the debugger client and debugger server can communicate with the tool locator through a socket connection such as a connectionless internet family socket that is bound to an internet address specified in an environment variable named TOOLLOCATORHOST, and a reserved well-known port (receiving a request from a client computer over the Internet to debug an application program of said client computer).

b-d. In column 12, lines 8-30, Fuh et al. teach transmitting back to said client computer a request for said application program to take an action; receiving an indication of a response of said application program action back from said client computer; and repeating the steps multiple times so as to run the application program through a diagnostic sequence.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 7, 8, 12, 13, 20, 27, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Fuh et al., U.S. Patent 6,324,683 B1 and further in view of Schauser, U.S. Patent 6,331,855 B1.

Referring to claims 7 and 12:

h. In column 10, lines 4-15, Fuh et al. disclose that when the external program is executed, the breakpoint set by the debugger is encountered. The debugger then issues a series of RPC calls to obtain a current context of the underlying external program and displays the current context state along with a frozen external program state to a user. The user can then use all of the debugging functions of the debugger on the external program (the preprogrammed diagnostic sequence is paused by a user of said server computer and control of said debug program is transferred to said user of said

server computer and receiving a request initiated by said user of said server computer).

i. In column 10, lines 4-15, Fuh et al. disclose that the user can then use all of the debugging functions of the debugger on the external program (causing said application program to respond to said request).

j., k. In column 10, lines 4-15, Fun et al. disclose displaying the current context state along with a frozen external program state to a user. However, Fuh et al. don't explicitly disclose generating a graphics file including pixel information for a graphics image displayed on a display screen of said client computer and automatically transmitting said graphics file to said server computer so that said graphics image is displayed on a display screen of said server computer. In column 2, lines 31-44, Schauser discloses that the present invention is a system and method for controlling information displayed on a first processor-based system. The system comprises a memory to store instruction sequences by which the second processor-based system is processed, and a processor coupled to the memory. The stored instruction sequences cause the processor to: (a) examine, at predetermined interval, a location of a currently displayed image; (b) compare the location with a corresponding location of a previously displayed image to determine if the previously displayed image has changed; (c) transmitting location information representing the change; and (d) storing the changed information on the first processor-based system. It would have been obvious to one of ordinary skill at the time of the invention to include the display

device of Schauser into the system of Fuh et al. A person of ordinary skill in the art would have been motivated to make the modification because *remote desktop access technology allows a user to control a remote computer as if sitting right in front of it. The user can run applications, access files, change configurations, or debug problems. There are many different uses for such technology, including providing technical support, telecommuting, collaboration, education and training, equipment control, software and computer rental, software demonstration, sales presentations, and access from mobile handheld devices* (see Schauser: column 1, lines 15-23).

Referring to claims 8 and 13, in column 10, lines 4-15, Fuh et al. teach repeating the steps multiple times so as to run said application program through a diagnostic sequence.

Referring to claim 20:

a. In column 12, lines 8-30, Fuh et al. disclose that the debugger is initiated by the client (detecting a debug request initiated by a user of a client computer).

b. In column 33, lines 40-47, Fuh et al. disclose that the debugger client and debugger server can communicate with the tool locator through a socket connection such as a connectionless internet family socket that is bound to an internet address specified in an environment variable named TOOLLOCATORHOST, and a reserved well-known port. In column 11, lines 60-62, Fuh et al. disclose that each connected client is serviced by a database engine that is running in a set of threads on the database server machine within

a process that is shared by other clients (establishing a connection between said client computer and said server computer over the Internet).

c., d. In column 12, lines 8-30, Fuh et al. teach receiving a request from a debug program of said server computer and causing an application program of said client computer to respond to said request.

e., f. In column 10, lines 4-15, Fun et al. disclose displaying the current context state along with a frozen external program state to a user. However, Fuh et al. don't explicitly disclose generating a graphics file including pixel information for a graphics image displayed on a display screen of said client computer and automatically transmitting said graphics file to said server computer so that said graphics image is displayed on a display screen of said server computer. In column 2, lines 31-44, Schauser discloses that the present invention is a system and method for controlling information displayed on a first processor-based system. The system comprises a memory to store instruction sequences by which the second processor-based system is processed, and a processor coupled to the memory. The stored instruction sequences cause the processor to: (a) examine, at predetermined interval, a location of a currently displayed image; (b) compare the location with a corresponding location of a previously displayed image to determine if the previously displayed image has changed; (c) transmitting location information representing the change; and (d) storing the changed information on the first processor-based system. It would have been obvious to one of ordinary skill at the time of the invention to include the display

device of Schauser into the system of Fuh et al. A person of ordinary skill in the art would have been motivated to make the modification because *remote desktop access technology allows a user to control a remote computer as if sitting right in front of it. The user can run applications, access files, change configurations, or debug problems. There are many different uses for such technology, including providing technical support, telecommuting, collaboration, education and training, equipment control, software and computer rental, software demonstration, sales presentations, and access from mobile handheld devices* (see Schauser: column 1, lines 15-23).

Referring to claims 27 and 31:

e. In column 10, lines 4-15, Fuh et al. disclose that when the external program is executed, the breakpoint set by the debugger is encountered. The debugger then issues a series of RPC calls to obtain a current context of the underlying external program and displays the current context state along with a frozen external program state to a user. The user can then use all of the debugging functions of the debugger on the external program (the preprogrammed diagnostic sequence is paused by a user of said server computer and control of said debug program is transferred to said user of said server computer and receiving a request initiated by said user of said server computer). Further, in column 12, lines 8-30, Fuh et al. teach transmitting to the client computer a request for said application program to take an action.

f-h. In column 10, lines 4-15, Fun et al. disclose displaying the current context state along with a frozen external program state to a user. However, Fuh et al. don't explicitly disclose receiving a graphics file including pixel information for a graphics image displayed on a display screen of said client computer in response to said action; displaying said graphics image on a display screen of said server computer; and repeating these steps multiple times so as to allow the user of the server computer to interactively debug the application program by transmitting requests for the application program to take certain actions in consideration of graphics images defined in graphics files received from the client computer in response to prior such requests. In column 2, lines 31-44, Schauser discloses that the present invention is a system and method for controlling information displayed on a first processor-based system. The system comprises a memory to store instruction sequences by which the second processor-based system is processed, and a processor coupled to the memory. The stored instruction sequences cause the processor to: (a) examine, at predetermined interval, a location of a currently displayed image; (b) compare the location with a corresponding location of a previously displayed image to determine if the previously displayed image has changed; (c) transmitting location information representing the change; and (d) storing the changed information on the first processor-based system. It would have been obvious to one of ordinary skill at the time of the invention to include the display device of Schauser into the system of Fuh et al. A person of ordinary skill in the art would have been

motivated to make the modification because *remote desktop access technology allows a user to control a remote computer as if sitting right in front of it. The user can run applications, access files, change configurations, or debug problems. There are many different uses for such technology, including providing technical support, telecommuting, collaboration, education and training, equipment control, software and computer rental, software demonstration, sales presentations, and access from mobile handheld devices* (see Schauser: column 1, lines 15-23).

5. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuh et al., U.S. Patent 5,630,049.

Referring to claim 25:

a1 In column 33, lines 48-62, Fuh et al. disclose that a debugger client, can send a message to request debugging services for itself or for another program running on the network. It does this by first sending a message to the tool locator to locate a debugger server specified by the debugger client. The tool locator will return the socket address of a debugger server that matches the debugger client's specification, message. The debugger client then sends a "debugIt" message to the debugger server to request debugging service from the debugger server. (receiving an identification of said application program from said client computer).

a2 In column 33, lines 48-62, Fuh et al. teach receiving information about the application to be debugged. However, Fuh et al. don't explicitly disclose

checking said application program identification against an application program identification list to confirm that a contractual obligation exists to debug said application program. The Examiner takes Official Notice that it is well known in the art of shareware, freeware, and public domain software that the user enters into a contractual agreement with the distributor and receives services based upon this contractual agreement. An example of this is Red Hat Linux. It would have been obvious to one of ordinary skill at the time of the invention to include the concept of a contractual agreement into the system of Fuh et al. A person of ordinary skill in the art would have been motivated to make the modification because checking for a contractual agreement before debugging prevents unwanted users from using the debugging service.

Referring to claim 26:

a3 In column 44, lines 13-20, Fuh et al. disclose a login ID being transmitted to the debugger (transmitting identifications of said client computer to said server computer).

a4 In column 44, lines 13-20, Fuh et al. teach receiving identification of the client computer. However, Fuh et al. don't explicitly disclose confirming that said client computer is authorized to run said application program by comparing said client computer identification against an authorized client computer identification. The Examiner takes Official Notice that it is well known in the art of shareware, freeware, and public domain software that the user enters into a contractual agreement with the distributor and receives services based upon this contractual

agreement. An example of this is Red Hat Linux. It would have been obvious to one of ordinary skill at the time of the invention to include the concept of a contractual agreement into the system of Fuh et al. A person of ordinary skill in the art would have been motivated to make the modification because checking for a contractual agreement before debugging prevents unwanted users from using the debugging service.

Response to Arguments

6. Applicant's arguments, see paper no. 7, filed January 28, 2004, with respect to the rejection(s)of claim(s) 22-24 and 28-30 under 35 U.S.C. 102(b) as being anticipated by Cardoza et al., U.S. Patent 5,630,049; claims 1-3, 5, 6, and 9-11 under 35 U.S.C. 103(a) as being unpatentable over Cardoza et al., U.S. Patent 5,630,049, and further in view of Blaisdell et al., U.S. Patent 6,357,019 B1; claims 7, 8, 12, and 13 under 35 U.S.C. 103(a) as being unpatentable over the combination of Cardoza et al., U.S. Patent 5,630,049 and Blaisdell et al., U.S. Patent 6,357,019 B1, and further in view of Schauser, U.S. Patent 6,331,855 B1; claims 14-21 under 35 U.S.C. 103(a) as being unpatentable over Cardoza et al., U.S. Patent 5,630,049, and further in view of Schauser, U.S. Patent 6,331,855 B1; claims 27 and 31 under 35 U.S.C. 103(a) as being unpatentable over Cardoza et al., U.S. Patent 5,630,049, and further in view of Cowart, Mastering Windows 98; and claims 25 and 26 under 35 U.S.C. 103(a) as being unpatentable over Cardoza et al., U.S. Patent 5,630,049 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon

further consideration, a new ground(s) of rejection is made in view of Fuh et al., U.S. Patent 6,324,683 B1.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,601,188 B1	Wilding
US 2003/0120979 A1	Lee et al.
U.S. Patent 6,058,393	Meier et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C Maskulinski whose telephone number is (703) 308-6674. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MM

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